

Law/Bruce



B b Holden Go rn Stephen M Mahfood Director

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY

PO Box 176 Jefferson City MO 65102 0176

A717

Site	Herculaneum
ID #	MO00626393
Break	20
Other	12-14-01

December 14, 2001

Mr Mike Sanderson
Director, Superfund Division
U S Environmental Protection Agency
Region VII
901 N 5th
Kansas City, KS 66101

Dear Mr Sanderson

The purpose of this letter is to convey the department's comments on EPA's draft Amendment to the Doe Run Herculaneum Administrative Order on Consent (AOC) First, thank you for providing the opportunity to review the draft We appreciate your commitment to working as partners on the extensive lead issues at the Herculaneum site

The department agrees that all of the requirements in your draft AOC Amendment are essential measures for protecting Herculaneum citizens and we urge you to direct Doe Run to undertake this work We also acknowledge the constraints that have led EPA to limit the draft Amendment to certain measures

However, we feel additional measures are needed on an expedited schedule In order for the department to be a signatory to the Amendment, it would need to require Doe Run to perform the additional work described below

- 1) Cleanup of all yards where lead levels exceed 400 ppm within two years, with indoor dust cleanup to follow closely after each yard cleanup Since your draft Amendment already requires cleanup of all yards where lead levels exceed 2500 ppm within one year (with associated indoor dust cleanups); the additional work would expedite cleanup of properties between 400 ppm and 2500 ppm lead
- 2) Completion of State Implementation Plan controls on an expedited schedule, as Doe Run has already offered
- 3) Characterization of yards between one mile and one-and-one-half miles from the Doe Run facility to be completed within six months The current AOC provides that EPA or the

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SUPERFUND RECORDS

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department can require this characterization if previous characterization indicates that contamination extends over one mile. Clearly, characterization done to date suggests that additional characterization is needed.

We have suggested some additional revisions in the enclosed redlined version of the draft Amendment. An important one that I assume you would be comfortable with pertains to the transportation plan. Doe Run's plan needs to address all vehicles that come into contact with contaminated material on site, not just vehicles carrying ore concentrate. Many of the problems we have observed involve other vehicles driving through contaminated areas and then onto public streets.

We remain concerned about the potential for recontamination of yards due to ongoing smelter emissions, even after the ambient air standard is met. The existing AOC requires Doe Run to estimate the rate of recontamination and the company has submitted a draft plan to do so. Although we have not formally commented, I believe both EPA and the department believe Doe Run's plan falls short of what is needed to obtain a reasonably accurate recontamination rate. As we understand it, the existing AOC provides the agencies unilateral authority to revise Doe Run's plan and the timeframe for implementing it. With your help, we would like to proceed under this authority as quickly as possible.

We also remain very concerned about citizens' exposure to lead during the period before yards and homes are remediated and prior to attainment of the ambient lead standard. We will continue to work with the Department of Health and Senior Services (DHSS) regarding the risks posed by these exposures based on the recent blood lead and sampling data, and whether the risks justify additional risk management strategies. We would expect DHSS to continue to coordinate closely with ATSDR. If the health agencies conclude that further risk management strategies are needed, we will work with EPA to implement them.

We are aware that the Amendment to the AOC requires the department's and Doe Run's concurrence, without which EPA will have to use another enforceable mechanism to direct Doe Run to perform the work. If EPA is unable to accommodate our request for all the additional work in the Amendment, we would still urge you to address as many of our concerns as you reasonably can in whatever enforceable mechanism you use. Should you decide not to order Doe Run to expedite cleanup of all properties over 400 ppm lead, please consider notifying Doe Run that the agencies intend to invoke paragraph I E d of the existing AOC (Statement of Work). This paragraph allows the agencies to adjust the rate of soil replacement starting in May, 2003, should we conclude that existing timeframes are excessive. Obviously, we believe the existing timeframes are excessive. We suggested notification language for your draft cover letter in comments e-mailed to EPA from the Hazardous Waste Program on Wednesday.

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We agree with you that EPA should act quickly to transmit an enforceable order to Doe Run directing work on an expedited timeframe. Our purpose in requesting that EPA expand the scope of the draft AOC Amendment is not to delay your action, but to convey our strong belief that additional work is necessary and should be required under state and/or federal authority. It remains very important for our agencies to continue to coordinate on these issues and use strategies that complement our respective legal authorities.

I will be available all day by phone should you wish to discuss these issues further. I can be reached at (573) 751-2747. Dan Schuette and John Young are also available at (573) 751-0763. Thank you again for the opportunity to comment.

Sincerely,

HAZARDOUS WASTE PROGRAM


Cindy Kemper
Director

CK ed

Enclosures

c Mr Steve Mahfood, Department of Natural Resources
 Mr John Young, Air & Land Protection Division
 Mr Dan Schuette, Air & Land Protection Division
 Mr Joe Bindbeutel, Attorney General's Office
 Mr Roger Randolph, Air Pollution Control Program

DRAFT 12/11/01
ATTORNEY WORK PRODUCT

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VII

KANSAS CITY, KANSAS 66101

IN THE MATTER OF)	
)	
THE DOE RUN RESOURCES CORPORATION)	
Herculaneum, Missouri)	
)	
Respondent)	Docket No RCRA-7-2000-0018
)	CERCLA-7-2000-0029
Proceedings under Section 7003 of the)	
Resource Conservation and Recovery)	
Act as amended, 42 U S C Section 6973,)	ADMINISTRATIVE ORDER
Sections 104, 106, 107, 122 of the)	ON CONSENT
Comprehensive Environmental Response)	
Compensation and Liability Act, as)	SECOND MODIFICATION
amended, 42 U S C §§ 9604, 9606,)	
9607, and 9622, and Section 260 530 RSMo)	
_____)	

I PRELIMINARY STATEMENT

1 In May 2001, the United States Environmental Protection Agency ("EPA"), the Missouri Department of Natural Resources ("MDNR") and The Doe Run Resources Corporation ("Doe Run" or "Respondent") voluntarily entered into an Administrative Order on Consent ("Order") concerning the Doe Run lead smelter in Herculaneum, Missouri and areas in the vicinity of the smelter that have been impacted by the smelter operation. The Order requires Respondent to conduct certain response actions to abate an imminent and substantial endangerment to the public health, welfare, or the environment that may be presented by (i) the actual or threatened release of hazardous substances at or from the facility, and/or (ii) the past or present handling, storage, treatment, transportation or deposition by Respondent of any solid

waste or hazardous waste The Order was issued by EPA and MDNR pursuant to Section 7003(a) of the Solid Waste Disposal Act of 1976, commonly referred to as the Resource Conservation and Recovery Act, as amended by the Hazardous and Solid Waste Amendments of 1984 (hereinafter referred to as "RCRA"), 42 U S C § 6973(a), Sections 104, 106, 107, and 122 of the Comprehensive Environmental Response, Compensation and Liability Act, as amended, 42 U S C § § 9604, 9606, 9607, and 9622 (hereinafter referred to as "CERCLA "), and Section 260 530, RSMo

2 Since issuance of the Order, new information has become available to EPA, MDNR and Doe Run which shows that the existing schedule for a portion of the response actions required by the Order needs to be expedited in order to protect human health and the environment New information also shows that certain additional response actions not required by the Order are necessary The new information is described below in Section II of this Amendment, Additional Findings of Fact

3 Paragraph 131 of the Order provides that minor modifications to any plan or schedule in the Order may be made in writing by the EPA Project Coordinator, following consultation with MDNR's Project Coordinator and Respondent's Project Coordinator Paragraph 131 additionally provides that the remainder of the Order, including the Statement of Work attached to the Order as Appendix A, may only be modified in writing by the signature of Respondent and the delegated EPA and MDNR signatories The modifications to the Order that are necessary as a result of new information are not minor modifications, and the modifications are therefore being made pursuant to this Second Modification of the Administrative Order on Consent ("Second Modification")

4 This Second Modification is entered into voluntarily by EPA, MDNR, and

Respondent

5 For purposes of entering into this Second Modification, Respondent agrees that EPA and MDNR have jurisdiction to issue this Modification and jurisdiction over the activities required by the Modified Consent Order. Respondent's participation in this Amendment shall not constitute or be construed as an admission of liability or of the findings or determinations contained in this Second Modification. Respondent agrees to comply with and be bound by the terms of the Modified Consent Order.

6 Nothing in this Amendment changes, modifies, or supercedes any of the terms of the original Order, except as specifically provided for herein. All provisions of the original Order, including all findings of fact, determinations, work to be performed, and appendices, work plans, and schedules incorporated as part of the original Order, remain in full force and effect, except as specifically provided for in this Second Modification.

II ADDITIONAL FINDINGS OF FACT

7 On August 21, 2001, MDNR personnel responded to citizens' complaints about dust coming off of trucks on their way to and from the smelter and dust on the haul route streets in Herculaneum. MDNR personnel collected a sample of road dust along the primary haul route at the northwest corner of Station and Broad Street in Herculaneum. The sample of road dust was dark grey and metallic in appearance. Laboratory analyses of the sample showed 300,000 mg/kg of lead.

8 MDNR personnel observed that road dust had collected in long narrow piles along the street curbs and shoulders.

9 On August 29, 2001, EPA performed additional sampling of dust from the haul route streets. EPA collected samples at seven sampling locations, at various points on the primary haul

route in Herculaneum. Lead concentrations in the samples ranged from 37,700 mg/kg to 294,000 mg/kg.

10. Limited sampling performed by EPA in late August and early September indicated that in addition to the existence of high levels of lead in the streets of Herculaneum used by Doe Run as haul routes, residential yards and parks along the haul routes also contained high levels of lead.

11. On September 17, 2001, EPA notified Doe Run by letter that the existing schedule contained in the Order for characterization of lead levels in residential soils needed to be expedited. In that letter, EPA notified Doe Run that within 60 days, soil sampling needed to be completed at approximately 484 (We thought they sampled 530) residences in the vicinity of the smelter. EPA requested that Doe Run perform the soil sampling as Additional Work under the Order, as provided for in Paragraph 135 of the Order.

12. On September 24, 2001, Doe Run notified EPA that it would perform the soil sampling work that EPA had requested in the September 17th letter.

13. Doe Run completed the soil sampling effort in mid-November and has provided the results of the soil sampling to EPA and to each resident whose property was sampled. The results show that approximately 17% of the residences sampled have children under age six at the residence and lead levels in soil greater than 400 parts per million. Approximately 10% of the residences have lead levels in soil greater than 10,000 parts per million, and approximately 19% of the residences have lead levels in soil between 2,500 parts per million and 10,000 parts per million.

14. During October and November 2001, EPA collected interior dust samples from residences in Herculaneum which have lead levels in soil exceeding 10,000 parts per million.

EPA also collected interior dust samples from residences where children reside who have been identified by the Missouri Department of Health as having elevated blood lead levels. Analyses of the samples shows that significantly elevated levels of lead are present in interior dust in such residences. Screening level results indicate dust concentrations as high as 3000 micrograms per square foot.

III WORK TO BE PERFORMED MODIFICATIONS

15 The specific requirements for soil cleanup in the original Order, including the schedule for performance of cleanups, are set forth in Part I of the Statement of Work, which is attached to the Order as Appendix A. With respect to the ~~485~~ 530² residences at which Doe Run recently conducted soil sampling pursuant to the Additional Work provision of the Order and which also fall into one of the categories listed below, the cleanup schedule contained in the Statement of Work is replaced and superseded by the following schedule:

<u>Category</u>	<u>Time frame for yard soil replacement</u>
Homes with children at or under 72 months old with blood lead level in excess of 10 mg/dl and soil lead level exceeding 400 ppm	Within 30 days of being notified by EPA of location of residence
Child care providers with soil lead levels exceeding 400 ppm lead	Within 30 days of being notified by EPA of location
Homes with resident children at or under 72 months old and soil lead level exceeding 400 ppm	Within 4 months of effective date of this Second Modification
Homes, parks, playgrounds, and elementary schools with soil lead level exceeding 10,000 ppm	Within 6 months of effective date of this Second Modification
Homes, parks, playgrounds, and schools with soil lead levels between 2,500 ppm lead and 10,000 ppm lead	Within 12 months of effective date of this Second Modification

16 This Second Modification only changes the cleanup schedule for residences which

fall into one of the categories listed above in Paragraph 15. With respect to residences where soil has not yet been sampled or where soil has been sampled and the residence is not in one of the categories listed in Paragraph 15 herein, the schedule for characterization and cleanup contained in the original Order remains in effect. Pursuant to paragraph I A d of the Statement of Work (SOW) Appendix A of the Order, EPA and MDNR are hereby notifying Doe Run to determine the extent of surface soil contamination in residential yards, day-care facilities, areas in schoolyards frequented by children, parks, and all other high use areas affected by the smelter operation beyond a one-mile radius of the smelter, but within a one and one-half mile radius of the smelter on non-company owned property on the Missouri side of the Mississippi River.

18 17 Doe Run shall characterize interior dust contamination at all residences where soil characterization sampling has been or is conducted pursuant to the Modified Consent Order. At each residence where Doe Run performs soil excavation and replacement pursuant to the Modified Consent Order, Doe Run shall perform interior dust characterization sampling within 15 days of the completion of yard soil replacement. For yards where Doe Run has completed soil excavation and removal since September 1, 2001, but prior to EPA's approval of the Interior Lead Dust Sampling and Analysis Plan, Doe Run shall perform interior dust characterization sampling within 30 days of EPA's approval of the plan. Doe Run shall develop a comprehensive Interior Lead Dust Sampling and Analysis Plan and submit it to EPA and MDNR for review and approval within 15 days of the effective date of this Amendment. All interior dust sampling and analysis shall be conducted in accordance with the approved Interior Lead Dust Sampling and Analysis Plan. This plan shall describe in detail the sampling methods to be utilized, locations to be sampled, and numbers of samples to be collected at each residence. Interior lead dust

characterization sampling shall be conducted using the ASTM D5438-93 Method or modified version of this sampling method such as the Baltimore Repair and Maintenance Method. Analytical results from interior dust characterization sampling shall be provided to the owner of the property and to EPA and MDNR within 20 days of performance of the sampling.

19 18 Doe Run shall perform an interior dust lead cleanup at all residences where the interior lead dust sampling required pursuant to Paragraph 17 herein shows that dust lead levels exceed 168 parts per million. Interior cleanup shall be initiated within 20 days of transmittal of interior dust sampling results to a residence. Doe Run shall work with each residence requiring indoor dust cleanup to schedule the indoor dust cleanup at a time which minimizes inconvenience for the resident. Doe Run shall develop an Interior Dust Cleanup Plan and submit it to EPA and MDNR for review and approval within 30 days of the effective date of this Second Modification. The plan should include, but not be limited to, a detailed description of worker qualifications and credentials, cleaning equipment and methods, plans and procedures for addressing different areas within residences, such as walls, floors, carpets, attics, furniture, draperies, and ductwork, the potential for recontamination in home interiors and abatement measures to address continuing recontamination of home interiors, and cleanup confirmation sampling methods and procedures. Doe Run shall perform post- interior dust cleanup confirmation sampling in accordance with Subpart D of 40 CFR Part 745. An interior dust cleanup shall not be considered complete until indoor dust concentration wipe sample results confirm that lead dust concentrations on floors are below 40 micrograms per square foot and lead dust concentrations on interior window sills are below 250 micrograms per square foot. For each residence where Doe Run performs interior dust cleanup, Doe Run shall provide cleanup confirmation sampling results to the residence, EPA, and MDNR within 20 days of completion.

of the interior dust cleanup

20 19 Within 30 days of the effective date of this Second Modification, Doe Run shall submit to EPA and MDNR for review and approval a Lead Concentrate Transportation and Handling Plan. Such plan shall describe and explain in detail practices and procedures which Doe Run will implement and follow to eliminate the release of lead to the community as a result of Doe Run's ore concentrate transportation and handling activities. The plan shall address practices to eliminate the release of lead from vehicles transporting ore to the Doe Run smelter, from vehicle unloading activities, from all vehicles leaving contaminated areas of the facility ~~after unloading ore concentrate~~, and any other activities related to ore concentrate handling and transportation which may result in releases of lead. The plan shall also include a schedule for implementation. Upon approval of the Lead Concentrate Transportation and Handling Plan, Doe Run shall implement the plan, as approved.

IV EFFECTIVE DATE

20 This Second Modification is effective as of the date of Respondent's receipt of a fully-executed copy of this Second Modification.

IT IS SO ORDERED

Date

James Gulliford
Regional Administrator
Environmental Protection Agency
Region VII

For the United States Environmental Protection Agency
Region VII

Date

David Cozad
Associate Regional Counsel

The UNDERSIGNED PARTIES enter into this Administrative Order on Consent,
Docket No _____

Relating to The Doe Run Resources Corporation facility
in Herculaneum, Missouri

For the Missouri Department
of Natural Resources

Date

Name
Title

Date

Name
Title

For The Doe Run Resources Corporation

Date

Name
Title

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ATTORNEY WORK PRODUCT

VIA TELEFAX AND FIRST CLASS MAIL

December ____, 2001

Jeffrey Zelms, President
Doe Run Resources Corporation
Suite 300
1801 Park 270 Drive
St Louis, Missouri 63146

Re Notification of Need for Expedited Soil and Dust Cleanup
Opportunity to Negotiate Second Modification to Administrative Order on Consent
Docket No RCRA-7-2000-0018, CERCLA 7-2000-0029

Dear Mr Zelms

Results of recent analyses of soil and dust samples taken from residences near the Doe Run lead smelter in Herculaneum show extremely high levels of lead in both soils and dusts at many of the residences. The sampling and analyses results show that spillage from Doe Run's ore hauling activities, in addition to contamination from other smelter-related sources, has resulted in widespread soil and dust contamination in Herculaneum. The levels of contamination are much higher than EPA anticipated would be present at the time we entered into the Administrative Order on Consent ("Order") in May 2001. EPA and MDNR have reviewed the recent sampling and analyses results and determined that the existing schedule for cleanup of residential soils as set forth in the Order is not protective of human health and the environment. Recent results from the Missouri Department of Health and Senior Services indicate that 21.5% of children age 6 and under have elevated blood-lead, further supporting our determination.

The schedule for soil cleanup must be substantially accelerated at properties where the contaminated soils present the highest risks to human health: (1) daycare providers with soil contamination above 400 parts per million, (2) homes where children reside who have elevated blood lead levels and with soil contamination above 400 parts per million, (3) homes with resident children age 72 months and under ~~younger than seven~~ and soil contamination above 400 parts per million, and (4) homes, parks, playgrounds, and schools with one or more sampling result showing lead contamination above 2500 parts per million. Soil cleanups at all properties in these categories must be completed within one year.

In addition, residential yard characterization to date indicates that surface contamination exists beyond the one-mile radius of the facility. EPA and MDNR by this letter are providing

notification to Doe Run that characterization of all residential properties and high-child-use-areas between one mile and one-and-one-half miles from the facility is to be completed within six months. This notification is pursuant to paragraph I A d of the Statement of Work (SOW) Appendix A of the Order.

According to paragraph I E d of the Statement of Work from the Order, beginning two years after execution of the Order, EPA or MDNR may adjust the rate of soil replacement if the time period projected to replace all soils is deemed excessive. Please be advised that EPA and MDNR contemplate invoking this provision of the Order based on evidence that additional yard cleanups may need to be expedited.

EPA and MDNR have also determined that at every home where residential yard soil replacement is performed, interior dust sampling needs to be performed shortly following completion of the cleanup. If lead is found in the interior dust at levels greater than 168 parts per million, the interior of the residence will need to be thoroughly cleaned by persons with expertise in lead abatement.

Finally, EPA is concerned that there are not enforceable, comprehensive procedures in place to prevent further releases of lead into the community as a result of Doe Run's ore concentrate transportation handling and transportation activities.

If Doe Run is interested in agreeing to perform the soil and dust cleanup work that is necessary to protect human health and the environment, EPA and MDNR propose that the existing Order be modified to provide for your performance of the work. Attached to this letter is a draft Second Modification to the existing Order, which would modify the Order by accelerating the soil cleanup schedule and requiring interior dust sampling and cleanup. The proposed Modification also requires Doe Run to prepare and implement a comprehensive plan to address ore concentrate handling and transportation activities.

This work must begin without delay in order to protect the health of the citizens of Herculaneum, and in particular the health of young children in the community. If you are interested in performing this work on a consensual basis, we are willing to provide a ten day period to finalize the terms of the Modification. If we are unable to reach final agreement with you on terms of the Modification within ten days, EPA intends to immediately pursue other options to ensure that the cleanup work proceeds. Such actions may include, but are not limited to, issuance of an administrative order requiring performance of the work pursuant to Section 106 of CERCLA and/or Section 7003 of RCRA, seeking judicial relief compelling performance of the work by Doe Run, or performance of the work by EPA. Failure to comply with an administrative order issued under Section 106(a) of CERCLA may result in a fine of up to \$25,000 per day, under Section 106(b) of CERCLA, or imposition of treble damages, under Section 107(c)(3) of CERCLA. If EPA performs the work, you may be held liable under Section 107 of CERCLA for the cost of the response activities EPA performs at the site.

We request your prompt attention to this urgent matter. We ask that you respond within three days of your receipt of this letter as to whether you are interested in performing this work on a consensual basis. Please direct your response to David Cozad, Associate Regional Counsel,

at (913) 551-7587 If we do not hear from you within that timeframe, we will assume you are not interested in performing this work on a consensual basis Thank you

Sincerely,

Michael J Sanderson
Director, Superfund Divison

cc Gulliford
Mahfood
MO AG's Office
CAG Leader?
MDOH
ATSDR
DOJ
EPA HQ